

REMARKS**1. Status of Claims**

Claims 1-10, 12-31 and 33-66 are pending. Each of claims 4, 14-16, 19, 21, 29, 30, 38, 39 and 65 has been confirmed as reciting allowable subject matter, but objected to as dependent upon a rejected base claim. The remaining claims (1-3, 5-10, 12, 13, 17, 18, 20, 22-28, 31, 33-37, and 40-64) stand rejected under various prior art rejections. The rejections are all predicated upon Hicks (USPN 4,758,087) either alone or in combination with other documents.

2. Amendments to Claims

Claims 2, 4, 5, 11, 32, 65 and 66 have been canceled, without prejudice, above.

After the present amendment, there are nine independent claims, claims 1, 16, 20, 30, 35, 40, 45, 51, and 57. Each of these claims has been amended to recite subject matter indicated as allowable by the examiner. Specifically, claims 1, 20, 35, 40, 45, 51 and 57 have generally been amended to reference a cavity that is at least partially disposed within a core of a waveguide, similar to the allowable subject matter of claim 4.

Claim 1, for example, has been amended to recite an optical resonator having a waveguide comprising "a core" wherein a "cavity is at least partially disposed within the core." Similarly claim 20 has been amended to recite an optical resonator having a waveguide comprising "a core" wherein a "cavity is at least partially disposed within the core." Claim 35 has been amended to recite an external high Q resonator "having a core and a cavity at least partially disposed within the core." Claim 40 has been amended to recite an optical resonator having a sensing surface, a waveguide with a core and "a cavity defining a variable gap and extending at least partially into the core." Method claim 45 has been amended to recite a method of sensing a measurable parameter comprising "providing a resonator...having a waveguide comprising a core...and a cavity extending at least partially into the core." Method claim 51 has been amended to recite a method of sensing a measurable parameter comprising providing a resonator comprising a waveguide capable of propagating a pulsed laser signal and "disposing, at least partially within the waveguide, a cavity

defining a variable gap." Claim 57 has been amended to recite "the cavity extending at least partially into the core."

Separately, objected to claims 16 and 30 have been written in independent form, reciting the subject matter of their respective base claims.

3. Claims 1, 3, 6-10, 12-31, and 33-64 Are in Condition for Immediate Allowance

As noted above, independent claims 1, 20, 35, 40, 45, 51 and 57 have been amended to recite subject matter similar to that of claim 4, which the examiner has confirmed as reciting allowable subject matter. None of the art of record teaches an optical resonator having a waveguide with a core and a cavity disposed at least partially within the core. Hicks, which the examiner principally relies upon in rejecting the pending claims, does not teach such an optical resonator, as has been confirmed by the indication of allowability of claim 4. In fact, none of the art of record teaches the recited subject matter, including the other art relied upon by the examiner: Ho et al.; Lin et al.; and Dunphy et al. As the prior art neither teaches nor suggests the recited subject matter, claims 1, 3, 6-10, 12-15, 17-29, 31, and 33-64 are in condition for immediate allowance. The rejections of these claims are traversed.

The remaining claims, objected to claims 16 and 30, have been rewritten in independent form and are, thus, in condition for allowance.

4. Drawings

The examiner has requested new drawings in place of those filed with the application on 28 November 2001. The applicant notes that formal drawings were previously submitted in this application on March 21, 2003, with a correction to drawing sheets 10 and 11 filed on June 10, 2004. The applicant resubmits these drawings, with the corrected drawing sheets under separate transmittal today.

CONCLUSION

Applicant submits that this case is in a condition for immediate allowance. For the foregoing reasons, Applicant respectfully requests allowance of all pending claims, claims 1, 3, 6-10, 12-31, and 33-64.

Respectfully submitted,

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